change in the state of the limb, through increase of swelling or its diminution, by simply letting out the lace, or taking it in, without even removing the bandage. It is, moreover, very light, and yet strong enough for any purpose to which a splint can be applicable."

35. *Modification of Fixed Apparatus for Fractures.*—Prof. JOLLIFFE TUFNELL describes (*Dublin Quarterly Journ. of Med. Sci.*, Feb. 1865) a modification of the fixed apparatus which he has used both in hospital and private practice with great satisfaction.

"The material required," he says, "for forming these splints is very generally available, consisting only of lint or old linen for the inner lining; strips of the same, torn three inches in width, and long enough to reach from the head of the tibia to the sole of the foot. To make the splint itself: The white of eight eggs and half a pound of flour for the fixing substance. These are all that are required; each and every one of which is to be procured in almost the poorest home—and as such, this splint is readily available to the surgeon in country practice.

"The main feature of difference between this mode of setting fractures and every other kind of fixed apparatus, is the construction of the splint in two halves, and the applying of the bandage, which is to form the same lengthwise, instead of circularly, thus avoiding all possible sources of constriction of the limb.

"Supposing, then, that the fracture has occurred in a city, or wherever else the most desirable materials are to be procured, the surgeon sends for the following, and places them beside him before interfering with the patient, further than to strip him of his clothes and lay him upon a properly prepared bed, upon the side opposite to the fractured limb—the leg itself being supported easily on a pillow—and the fracture, as far as possible, reduced. The articles required are—a table for spreading the bandages upon, a wash-hand and small sharp-edged basin, eight eggs, and half a pound of flour, as before stated; a large iron or silver spoon, a large knife, three calico roller bandages, half a yard of Taylor's lint, and some hot water. The lint is first thrown upon the limb, from the knee to the sole of the foot, and cut roughly into the outline of the limb, of a size sufficient to tuck under the sole at the bottom, and from side to side of the leg.

"This lint is placed in the large basin, and hot water poured upon it, so as to saturate it completely, and whilst dripping, and without being wrung, it is lifted out and put upon the outer side of the limb of the patient who is lying with the leg bent, and exactly in the same position recommended by Pott, with this difference that the limb is on the inner instead of its outer side, by this measure insuring subsequent inversion instead of eversion of the foot. Extension and counter-extension are now made by the hands of two assistants, and the fracture set by the surgeon, who models the wet lint on to the limb with his hands, so that it is as closely applied as a stocking would be; any starting or spasm of the muscles is prevented by the assistants just laying their hands steadily upon the limb. The surgeon now breaks the eggs upon the sharp edge of the small basin, drops the yelks into it, and the albumen into the other, having first thrown out the hot water which was previously in it for wetting the lint; he then takes sufficient flour, according to the size of the eggs, and with the spoon beats it and the albumen into a homogeneous mass of the consistence of pancake. He next measures with the end of a roller the length of the limb, from the knee to the centre of the sole, and placing the forefinger of his left hand, pointing upwards, and the forefinger of an assistant opposite to him at the required distance, he winds the whole of the three roller bandages, one after the other, around the fingers, and then with a scissors divides them at either end; thus in a few moments obtaining the strips necessary for the splint, all of exactly the same and the proper length. Each of these tails is now spread thickly with the egg and flour upon one side, and as spread, folded double, with the plastered surfaces opposed and laid aside. The object of this is to keep them moist, and in hot weather from drying; as soon as they are all done the surgeon commences, and having them handed to him one by one, he lays them on the limb, moulding them to it, layer after layer, from the innermost portion of the tibia within to the farthest point of the calf of the leg that can be reached behind, covering accurately the instep, the toes, sole and heel, and not leaving a wrinkle or crease. The large knife which has previously been employed for spreading the bandages with egg and flour, is now employed as a spatula, and taking a few of the tails of bandages which have been left unspread, these are passed beneath the limb, and one after the other brought around it (as shown by the dotted lines), so as to confine the wet tails to the leg, and not allow them to be raised from off it as they otherwise would be by the expansion of the heated air which becomes rarefied within.

"The limb is now *left uncovered* till next day; if covered, the splint will not dry, but retains a kind of pasty condition, whilst if exposed to the air for twenty-four hours it will be as firm and as light as cardboard on the limb. Upon the succeeding day the patient turns over upon his opposite hip, and the same proceeding is repeated exactly as before, taking care that the lint lining goes well over the limb, so as to be in advance everywhere of the plastered strips, which if allowed to come in contact with the other portion of the splint would intimately adhere to it, and cause difficulty in the separation of the halves; this too is allowed to dry. Upon the succeeding morning the two half splints, or only the second half, as the surgeon may think fit, are removed, the edges trimmed neatly with scissors, the second half overlapping the other by at least half an inch, insuring correctness, whilst all pinching of the integument is prevented; when the roller bandage is subsequently put on, the two portions of the splint, in fact, should glide, as it were, the one over the other. Nothing more remains to be done; a couple of fillets to confine them to the limb, or a lightly applied roller bandage are sufficient, and the patient may now lie in bed with his leg straight or bent, as he wishes, raised up upon a pillow, or slung, whichever way he fancies or feels it easiest; and after a few days may get up, supporting the extremity by a sling round his neck.

"Subsequently, when the patients come to exercise and move about, and the size of the limb to decrease, the splints may be brushed over inside with hot paste (as also around the edges), and a piece of chamois leather, previously cut to the size and shape, moulded in to form a softer and additional lining.

"These splints are very light, weighing, when dry, but a few ounces, yet from their extreme accuracy in fitting the limb, and evenness of pressure, most surprisingly strong.

"The same material I also employ in the immediate treatment of fracture of the fibula, and, at a later period, in fracture of the thigh, used in the circular form; put on, however, in tails, imbricated one over the other, and not as a roller bandage. Thus applied it is, of course, necessary to slit it up prior to removal, and for this purpose I employ a blunt gorget with the handle reversed, using it as an ordinary director, and cutting down upon the grooved steel with any sharp pointed knife. Seutin's pliers and all other kinds of scissors and dividers I have tried and found objectionable in use, causing more or less annoyance and pain to the patient from the pressure exercised upon the soft parts in making a division of the harder external case, whereas the gorget slips along upon the skin, whilst its broad, round, and polished surface is cut down upon without the slightest motion or pressure, and is not noticed hardly by the individual."

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36. *Rare Variety of Inguinal Hernia* (*Cooper's Encysted Hernia of the Tunica Vaginalis*).—As the result of an elaborate investigation into the nature of this form of hernia, M. Bourquet arrives at the following conclusions: 1. There is a variety of hernia characterized by the presence, within the tunica vaginalis of the testis, of an isolated and independent hernial sac. 2. This sac, entirely distinct from the tunica vaginalis, is formed by a diverticulum of the peritoneum, which becoming engaged within the superior orifice of the inguinal canal, afterwards projects within the cavity of the serous membrane of the testis. 3. The tunica vaginalis then presents a more or less considerable enlargement, and may become the seat of an accumulation of liquid, which coexists with the hernia. 4. The designation, "hernia with a double sac," or "hernia with intra-vaginal sac," would seem to be more appropriate, as giving a more exact idea of the nature of the affection than that of "encysted hernia of the tunica vagi-